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Sam Brownback, Governor

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## BID EVT0001698 AMENDMENT NO. 1

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1. Q: In Section 1.2 the first paragraph, it is stated that CMS is a mainframe-based application deployed in March 1992 and upgraded to a Java-based client server architecture in 2003. Are contracts and materials functions the only mainframe portions remaining and why were these not converted to Java in 2003?

A: When CMS was upgraded from dBASE to JAVA it was determined that the graphical user interface (GUI) would be JAVA and we would reuse the COBOL back end. There is a standalone/disconnected portion of CMS that is all JAVA. Contracts and materials backend processing functions are still on the mainframe.

2. Q: Section 1.32, CMS System Objectives, Under Materials Objectives, #8 reads "Enable automated verification of proposed materials as approved for specific purposes." Can you expand upon or provide examples of 'specific purposes.'

A: Automated verification would be at the point in the letting process that the contractor/supplier submits their proposed materials at the preconstruction meeting. The process would somehow be automated so that when the contractor/supplier submits these materials that the system could immediately approve or disapprove their proposed material or producer/supplier. Another possible variation of this would be in the mix design process where the contractor would actually be entering their proposed materials that would make up the mix. In that scenario the contractors would enter their designs directly into CMS which would tell them right there and then if the material (asphalt, aggregate, admixture, etc...) they want to use is currently prequalified. The idea of "specific purposes" would be like asphalt, aggregate, cement, admixtures, curing compounds, etc. for concrete or hot mix asphalt (HMA). It could be a rebar source with a certain grade of steel or a certain type of pavement marking for a particular kind of pavement or location.

3. Q: Which of the integration points described in the diagram in Section 1.4.2 are mainframe applications?

A: CCFB (Cost Center Feedback)

4. Q: Section 1.4.3 states that the contracts and materials functions are the mainframe portions. Please provide the makeup and count of each component of the inventory that would be converted or replaced by technology and their versions?

A: Contracts – 9 COBOL (Interface batch programs)
38 JAVA Only
30 JAVA GUI COBOL back end
1 JAVA report
22 JAVA GUI SAS back end (reports)
10 SAS scheduled reports
Materials – 2 COBOL (Interface batch programs)

13 JAVA Only
42 JAVA GUI COBOL back end
1 JAVA report
23 JAVA GUI SAS back end (reports)
4 SAS scheduled reports
Utility – 2 COBOL
11 JAVA Only
7 JAVA GUI COBOL back end
23 JAVA GUI SAS back end

JAVA architecture consists of UI, Business, and data manager classes.

Versions - Mainframe: z/OS v 1.13

Cobol: IBM ENTERPRISE COBOL FOR Z/OS 4.2.0

Mainframe SAS 9.2 on z/OS

Java 1.6 (CMS runs in IBM Lotus Expeditor client 6.2.2 with Java 1.6 and JRE 1.6)

5. Q: Besides the desired technical requirements listed in Appendix D, please describe what challenges CMS faces due to the aging and obsolete mainframe technologies upon which the application is based. Are these challenges due to parts of the application remaining on the mainframe or because it was designed as a mainframe application and never redesigned when it was upgraded to Java?

A: KDOT recognizes that its ability to effectively support mainframe applications is diminishing and that it needs to narrow the complexity of its technical architecture From a cost perspective, KDOT is projecting that, as other Kansas State agencies migrate off of the mainframe, the fixed costs for mainframe and associated support services will rise. From a resource perspective, KDOT recognizes the growing skills gap in COBOL programming and the impacts this gap presents to support mainframe applications. Finally, KDOT seeks to align CMS with its updated technical architecture environment standards.

6. Q: In the Requirements Matrix, Requirement #4, can you expand upon "Reject subcontractor requests is required"?

A: Rejection entails the capability to send the request back to a previous approval level(s) with the ability to add remarks if approval is not granted due to discrepancies identified during the review process.

7. Q: In the Requirements Matrix there are several requirements that mention signatures. Are these electronic (digital) signatures or electronic approvals? Capture approver signatures for change order requests (Requirement #10). Capture Certification of Work Complete signatures (Requirement #41).

Capture contractor final pay voucher signatures (Requirement #47).

Capture approver signatures for contract finalization requests (Requirement #56).

A: Ultimately we would want electronic signature (for approvals) but we would also consider electronic approval. This does not rule out the possibility of digital signatures that are issued through a public key infrastructure (PKI) process.

- 8. Q: In the Requirements Matrix, Requirement #26 states "Execute search of diary notes by field." Can you expand upon or clarify this requirement?
  - A: The ability to search through all the diary text using a keyword or by specific data elements contained in fields created to capture key elements of the diary data.
- 9. Q: Has KDOT evaluated commercial off-the-shelf Construction Management Software that may be considered for replacing CMS? Has KDOT eliminated any packaged software from consideration?
  - A: This effort is to evaluate all options including off the shelf software. As of this date we have not eliminated any software replacement options.
- 10. Q: What types of system downtime does KDOT experience with the CMS application?
  - A: Other than the maintenance windows, CMS has rarely been down.
- 11. Q: What method and tools are used to perform the data transfers to and from the mainframe?
  - A: Depending on the program we use FTP, JDBC, CICS transaction gateway and DB2 connect for accessing data.
- 12. Q: What other mainframe applications impact the CMS system?
  - A: CCFB (Cost Center Feedback) is the only Mainframe application that interfaces with CMS.
  - Q: What other KDOT mainframe applications could be candidates for modernization?
  - A: The KDOT is currently evaluating <u>all</u> mainframe applications for replacement. Out of the KDOT evaluation will derive a prioritized plan/approach to replace our mainframe applications over the next several years.
- 13. Q: Would KDOT be willing to discuss steps that focus on the other MF applications and Transformation?

A: Not at this time, CMS will be the first application that is fully evaluated through an RFI process. KDOT is currently evaluating options for other mainframe applications in our portfolio and will communicate any initiatives to the vendor community as appropriate.

14. Q: Does KDOT desire to decommission the mainframe entirely?

A: The mainframes are hosted and operated by the State and not by KDOT. As such, decommissioning the mainframe entirely is not within KDOT's control. Specific to the KDOT applications running on the mainframe, the timing for the migration of KDOT applications off the mainframe is under evaluation and no decision has been made at this time.

Q: Does KDOT own or lease the mainframe? If lease, when is the lease expiring?

A: KDOT does not own or lease the mainframe; KDOT pays a monthly fee to the State.

15. Q: What type of budget does KDOT have that would be considered low implementation and maintenance costs for CMS?

A: We are too early in the process to have determined a budget for CMS yet. The responses we get to this RFI are expected to begin to give us an idea of reasonable costs and will then be mapped against the forecasted budget to ensure the services are financially feasible.

16. Q: What was the cost to implement CMS and what is the current cost to maintain CMS?

A: The past implementation costs and current maintenance costs are not relevant to the new solution. We want to focus on what is the appropriate solution for KDOT moving forward and not let these costs influence a solution.

17. Q: Is this RFI targeted to **replace** the CMS package with another more advanced package?

A: A replacement of the current in-house product will be considered. However, it has yet to be determined what alternative will be pursued per section 1.6 of the RFI. KDOT has identified four preliminary alternatives (i.e., 1. Revolutionary Rewrite, 2. Evolutionary Rewrite, 3. Lift and Shift, and 4. Rip and Replace), but this listing is preliminary and by no means exhaustive. . Other alternatives will be considered as received in response to the RFI.

18. Q: What is the KDOT's desired or projected timeline for implementation of the proposed construction management system?

A: The timeline for the start of implementation will depend on availability of funding and the procurement process as well as vendor solutions.

19. Q: What timeframe does KDOT require for a rewrite or conversion of CMS? Is there any critical time sensitive constraint(s) that is (are) driving a month and year when this project must be implemented?

A: There are no constraints that are driving the timeline but KDOT would like to reduce implementation costs and risks through an expedited approach.

20. Q: Will KDOT consider licensing and implementing a client/server system?

A: Preferably not. Ultimately we want a web-based system and do not want to go through two conversions. The availability of a solution that is web-based will be a factor in determining when to convert.

21. Q: Will the KDOT consider licensing and implementing a client/server system with a proposed timeline and migration path to a web based system?

A: See answer to number 20.

22. Q: There seems to be a discrepancy between the time of the due date for this RFI. The Event document states 1400 (2 PM CDT) while the RFI document states 5 PM CDT. Which is correct?

A: 5 PM CDT